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Amendments to the Drawings

The replacement sheet of drawings attached hereto as **Exhibit A** include changes to, and replace, Figures 14 and 15 of the original sheets of drawings.

Figure 14 has been deleted.

Figure 15 has been amended to show that both of mouse 18 and keyboard 19 are connected to each of hollow viscera extracting unit 150 and notable region setting unit 151, as indicated at page 22 of the specification. No new matter is added by the amendment to Fig. 15.

Attachment: replacement sheet of drawings for Figure 15

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REMARKS

The application has been reviewed in light of the Office Action dated December 19, 2008. Claims 1-20 are pending. By this Amendment, claims 1, 3-9, 11 and 13-19 have been amended to clarify the claimed subject matter. Claims 1-20 would remain pending upon entry of this amendment, with claims 1 and 11 being in independent form.

The abstract was objected to as having informalities. The specification was objected to as having informalities. The drawings were objected to as having informalities. Claims 1-9 and 11-19 were rejected under 35 U.S.C. §112, second paragraph, as allegedly indefinite.

By this amendment, the application has been amended to address the formal matters noted in the Office Action.

Withdrawal of the rejection under 35 U.S.C. §112, the objection to the abstract, the objection to the specification and the objection to the drawings is respectfully requested.

Claims 1, 3, 6, 11, 13 and 16 were rejected under 35 U.S.C. § 102(b) as purportedly anticipated by Giger et al. (US 2001/0043729 A1). Claims 2, 4, 5, 7, 9, 12, 14, 15, 17 and 19 were rejected under 35 U.S.C. § 103(a) as purportedly unpatentable over Giger in view of U.S. Patent No. 6,301,498 to Greenberg et al. Claim 8 and 18 were rejected under 35 U.S.C. § 103(a) as purportedly unpatentable over Giger in view of Heilbrun et al. (US 2001/0039421 A1) and further in view of Mault (US 2001/0044588 A1). Claims 10 and 20 were rejected under 35 U.S.C. § 103(a) as purportedly unpatentable over Giger in view of Greenberg and further in view of U.S. Patent No. 6,643,533 to Knoploch.

Applicant respectfully submits that the present application is allowable over the cited art, for at least the reason that the cited art does not disclose or suggest the aspects of the present application of calculating a degree of deformation from normal shapes of the organ region being

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set by a organ region setting means or step, storing the deformation degree of the organ region as a reference value, and comparing the stored reference value (deformation degree of normal shapes) with a deformation degree being calculated by the deformation degree calculating means or step of the organ region.

Giger, as understood by Applicant, proposes an approach for classifying mass legions, as shown in Fig. 4 (reproduced below) of Giger, including automated segmentation of mass regions including inputting of digital images (step 402), manual or automatic indication of lesion center (step 404), and automated lesion extraction (step 406), automated feature-extraction (step 408) for predetermined features, such as spiculation, shape, margin sharpness, texture, etc. (step 410), and automated classification (step 412).

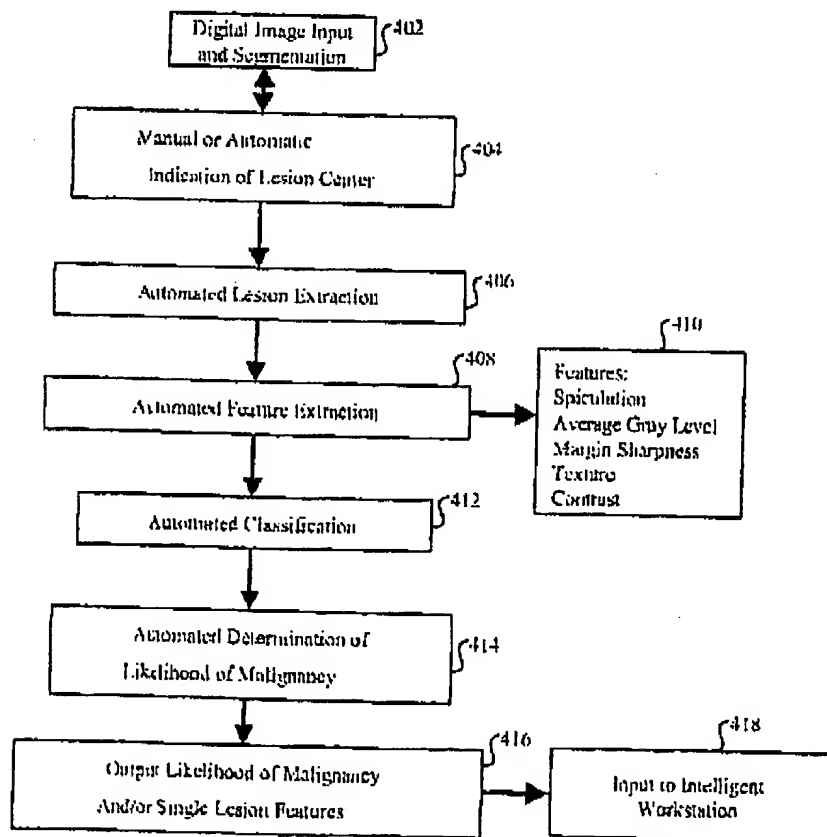


Figure 4

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However, in the approach proposed in Giger, features of the image data are extracted without using the shape of normal organs as a reference. The approach of Giger does not involve calculating a degree of deformation from normal shapes of the organ region being set by a organ region setting means or step.

Giger proposes calculating similarity indices between features extracted from unknown image data and those extracted from known images in databases.

On the other hand, Giger does not disclose or suggest the above-mentioned aspects of the present application of calculating a degree of deformation from normal shapes of the organ region being set by a organ region setting means or step, storing the deformation degree of the organ region as a reference value, and comparing the stored reference value (deformation degree of normal shapes) with a deformation degree being calculated by the deformation degree calculating means or step of the organ region.

The other cited references (including Greenberg, Heilbrun, Mault and Knoplioch) likewise do not disclose or suggest such aspects of the present application.

Applicant submits that the cited art, even when considered along with common sense and common knowledge to one skilled in the art, does **NOT** render unpatentable the above-mentioned aspect of the present application.

Accordingly, applicant respectfully submits that independent claims 1 and 11, and the claims depending therefrom, are allowable over the cited art.

In view of the remarks hereinabove, applicant submits that the application is now in condition for allowance, and earnestly solicits the allowance of the application.

If a petition for an extension of time is required to make this response timely, this paper should be considered to be such a petition. The Patent Office is hereby authorized to charge any


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required fees in connection with this amendment, and to credit any overpayment, to our Deposit
Account No. 03-3125.

If a telephone interview could advance the prosecution of this application, the Examiner
is respectfully requested to call the undersigned attorney.

Respectfully submitted,



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EXHIBIT A

to
AMENDMENT
(Serial No. 10/566,666)